

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/004575

International filing date (day/month/year)
29.10.2004

Priority date (day/month/year)
30.10.2003

International Patent Classification (IPC) or both national classification and IPC
A23L1/30, A61K35/78, A23D7/005, C07C62/32

Applicant
LODERS CROKLAAN BV

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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WRITTEN OPINION OF THE
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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. II Priority

1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. ☐ It has not been possible to consider the validity of the priority claim because a copy of the priority document was not available to the ISA at the time that the search was conducted (Rule 17.1). This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

4. Additional observations, if necessary:

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 3

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the whole application or for said claims Nos. 3

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	5-17,21-22
	No: Claims	1,2,4,18-20
Inventive step (IS)	Yes: Claims	
	No: Claims	1,2,4-22
Industrial applicability (IA)	Yes: Claims	1-2,4-22
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

and /or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

Re Item III.

Present claim 3 relates to an extremely large number of potential compounds which are only defined by reference to how they are obtained. This leads to a clarity problem of such an extent that the search could not be carried out (see the International Search Report), and that no examination of that claim could be carried out.

Re Item V.

1 The following documents are referred to in this communication:

- D1: US-A-5 466 453 (UCHIDA YUKIO ET AL) 14 November 1995 (1995-11-14)
- D2: DATABASE WPI Derwent Publications Ltd., London, GB; AN 1997-272844 XP002272810 DONG Y, WANG S, ZHANG R: "Method for extracting raw pine needle juice" & CN 1 102 111 A (DONG Y) 3 May 1995
- D3: US-B-6 190 6801 (YOSHINO HISAKO ET AL) 20 February 2001
- D4: LEE Y-H ET AL: "THE CHOLESTEROL-LOWERING EFFECTS OF THE EXTRACT FROM PINUS STOBUS IN CHICKENS" HANGUG NYENNYAN SIGRYAN HAGHOI JI - JOURNAL OF THE KOREAN SOCIETY OF FOOD AND NUTRITION, PUSAN, KR, vol. 25, no. 2, 1996, pages 188-192, XP001026939 ISSN: 0253-3154
- D5: DATABASE WPI Derwent Publications Ltd., London, GB; AN 2002-203307 XP002272811 JEONG CB: "Production of steamed bread" & KR 2001 091 281 A (JEONG CB) 23 October 2001
- D6: US-B-6 329 0001 (JI LING) 11 December 2001
- D7: EP-A-1 129 711 (UNILEVER PLC ; UNILEVER NV (NL)) 5 September 2001
- D8: WO 2004/064757 A (GINSKI MARK ; SHIRE LAB INC (US); COUCH RICHARD A (US); KIBALO BEN (US) 5 August 2004

2. Novelty and inventive step

2.1 Document D1 discloses the incorporation of extracts of pine material such as needles ("pine leaves"), obtained by e.g., extraction with water or water-soluble solvents (col.2 li.34-65, experiment 1), in a variety of foods (col.5 li.20-62), more specifically in mayonnaise and dressings (col.5 li.34-35). The resulting product exhibits health

promoting activities, including prevention of hypertension (col.1 li.26-32, col.4 li.62 - col.5 li.10). The application does not reveal any difficulty or unexpected effect linked to the incorporation of pine needle extract into the claimed specific food product. Further, it is known from D9 that quinic and shikimic acids are present in pine needles. Thus, it is considered that the subject-matter of claims 1, 2, 4, 18, 19, and 20 is not new (Art. 33 (2) PCT), and that the subject-matter of claims 1-2, and 4-22 is derivable by a skilled person from that document already (Art. 33 (3) PCT).

2.2 The presence of organic acids and minerals in the pine needle extract and therefore, in the claimed emulsion, might be an inherent fact due to the composition of the extract: this is further suggested by D2 where the presence of minerals (trace elements) and vitamin C (ascorbic acid is an organic acid) in an aqueous pine needle extract is mentioned.

3. The subject-matter of claims 1-2 and 4-22 is industrially applicable in the sense of Art. 33 (4) PCT.